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(346)

REGULATIONS FOR SALTED FISH AND KLIPFISH

Regulations for dressing, processing, conveying, packing, storage and transport of fish which are to be processed into, or have been processed into salted fish[1] and klipfish[2].

(Issued by the Department of Fisheries on June 6, 1968, with amendments on December 9, 1968, January 5 and February 25, 1973, February 25, 1974, October 29, 1976 and June 27, 1978)

Chapter 1

General regulations

Paragraph 1

These regulations apply to cod, haddock, pollock, ling, blue ling and cusk, or parts thereof, which through salting and drying will be, or have been, made into products intended for human consumption.

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[1] See page 52 for a list of translator's notes.

Paragraph 2.

For export of goods mentioned in Paragraph 1, it is only permitted to use fish which have been processed according to these regulations, and which have been the object of official quality control by Norway's Fisheries Control.

Fish intended for the domestic market must likewise have been processed in accordance with these regulations and may be the object of control.

Control in accordance with these regulations includes both inspection of individual fish and each individual package of a shipment (grading), and of part of a shipment (random sampling).

The control also includes each single factor that is of importance to sanitary production conforming to the regulations, such as work premises, work procedures, equipment, transport, etc.

Paragraph 3.

Whosoever intends to produce, package, store, transport, convey or sell goods mentioned in these regulations is in duty bound to conform to the regulations and injunctions issued by the Control[3] pursuant to these regulations.

These stipulate that the labour and equipment necessary for the control must be made available, at no cost to the Control, as well as any assistance required by the inspector in the work necessary to carry out the control.

Paragraph 4.

The provisions in Paragraphs 3-19 of "Regulations for dressing, processing, conveying, packing and transport of fresh and frozen fish, fish filets and roe" of March 11, 1961, also apply to fish which are to be processed into salted fish and klipfish.

Paragraph 5.

The production of salted fish and the drying of salted fish into klipfish must be carried out in a sanitary manner.

For the production, packing and storage of fish covered by these regulations, work premises which are sanitary and suitable must be used.

The layout of the interior must, as far as possible, be such that it is possible to store the different qualities separately. This also applies to weighing and packing, so that mixing of different goods and qualities can be avoided.

In plants where raw products are also handled (fresh fish, salted fish, by-products), work with these must be carried out in rooms that are separate from the premises where drying, sorting, packing and storage of klipfish take place.

In plants covered by these regulations, it is not allowed to store or use preservatives other than salt.

Rooms where fish are salted and stored during curing must have "clean"[4] heating, so that the temperature at 20 cm

above the floor is at least +5° C. In order to monitor this, the room must be equipped with a thermometer.

Chapter 2.

On the processing of salted fish (splitting).

Paragraph 6.

In the production of salted fish, bled and unbled fish are kept separate. The fish are washed carefully in a tub, and, if necessary, with a brush so that all slime is removed.

If there are fish left over from one day to the next, the inspector can refuse to take on new fish until the previously received fish have been processed.

Pollock over 50 cm must be scraped carefully before washing. Excluded are pollock for special processing, cf. Paragraph 12. Pollock should be scraped in a round, ungutted state, when this is possible, within the time allotted for gutting.

After washing, the fish is split, i.e. about 2/3 of the vertebral column is removed with a suitable knife.

Splitting must be done skillfully and is carried out as follows:

1st cut: The gutted fish is placed on a board, belly facing the splitter. The neck is cut off.

2nd cut: The splitter slides the knife from the beginning of the backbone backwards to the narrow part of the tail in such a manner that one anal fin is left on each side.

3rd cut: The knife is then placed at the first anal fin and

and brought forward towards the neck, so that the backbone is cut loose leaving no pieces of bones, and the blood at the neck is cut away.

4th cut: In the fourth cut, the third vertebra of the backbone is sliced through below the anus, and the cut is laid on a slant across three vertebrae so that the entire spinal cord[5] is removed.

5th cut: After cutting through the backbone, the knife is brought forwards so that the vertebral column is cut free for removal. Fish which are to be processed into klipfish are split to the very end to avoid a rounded tail portion. The splitting must be so deep that the remaining caudal vertebrae (tail bone) are laid quite free. (347)

When splitting is done by machine, this should also be carried out in a professionally acceptable manner.

Pollock which are under 58 cm when fresh (measured from the tip of the snout to the end of the outermost rays of the tail), can be split without removal of the vertebral column (backbone). The fish is split to the very end, so that a rounded tail portion is avoided, and the backbone remains on one side of the fish in one single piece. During machine splitting, the vertebral column should, if possible, be split lengthwise. Pollock split is this manner are called backbone pollock.

Paragraph 7.

After splitting, the fish is pushed from the splitting board onto a grating.

From the grating, each fish is picked up by the tail and held in a rinsing tub under water, so that the blood in the remaining backbone is pressed out in the water through wringing, whereupon the fish is carefully washed. All impurities, blood and shreds fibers are removed. A different method of washing after splitting is permitted, if it is judged appropriate by the Control.

If the salted fish/klipfish are to be without black skin, this is removed before or during washing.

Constantly circulating fresh water is used in the tub before and after splitting.

As regards remaining fish (2-4), they should be left, after splitting, up to 3 hours in running water before they are salted or placed in brine.

Backbone pollock must, immediately after splitting, be cleaned of any remaining entrails, including the liver, and washed carefully in plenty of circulating water.

Paragraph 8.

It is prohibited to drop washed or split fish on floors, quays or decks, where there are no white-washed gratings. The

fish must be protected against contamination and weather (sun, rain, cold), if necessary, with clean, unchyed natural-coloured tarpaulin.

Paragraph 9.

Suitable, clean, unused salt must be used for salting. Suitable salt means:

1. The salt must look clean and must not contain visible coloured particles or foreign crystals. It must be free of unusual odours and have a pure, clean salt taste.
2. It must have a content of chlorides, based on sodium chloride, of at least 97% by weight, calculated by dry weight.
3. The total moisture content of the salt must not exceed 6.0% by weight.
4. The salt must not have an iron content exceeding 10 ppm (parts per million), and the content of copper in the salt must not exceed 0.1 ppm.
5. The presence of demonstrable amounts of dirt, oil or other foreign substances is not permitted.
6. The salt must not contain any additives, unless specifically permitted for the salting of fish.

Salt for salting of fish must be kept in salt bins, a salt storehouse on the premises, or bags.

The salt bin or storehouse must be designed and kept in such a state that no contamination can take place.

All areas where salt is stored or transported must be kept clean. This applies to silos, bins, bags, holds, loading platforms, hoists, etc. All such items must be washed carefully as soon as they have been emptied - if necessary, they should be washed again before new salt is brought in.

It is prohibited to step in the salt.

Paragraph 10.

The fish are stacked evenly and smoothly in piles. Fish without black skin can be placed with the skin facing up. The entire surface of the fish is salted evenly and sufficiently.

During salting, th ile should, if possible, be restacked not later than after 4-6 days. During this restacking the still undissolved salt can be left on each individual fish which is moved to a new pile. Additional clean, unused salt is spread in sufficient quantity over the entire surface of the fish.

Used or contaminated salt must be removed from the room.

The fish piles must not be placed directly on the floor, if there is danger of contamination or water collecting on the floor. They should, if possible, be placed on boards, and the underside of the boards must be at least 3 cm above the floor.

Frozen fish must not be put in salt until it has been sufficiently defrosted.

There must be no stepping on the fish piles, unless they are covered with boards.

Normally, the fish are not considered cured until after 3-4 weeks in salt. Filets are usually cured after 2 weeks in salt. Fish salted in tubs or barrels may be cured earlier (8-10 days) on the condition that the strength of the brine is 24° Baumé, cf. Paragraph 22, second section and Paragraph 5, last section. (348)

Chapter 3.

On the production of salted filets and split, salted fish.

Paragraph 11.

Original salted cod, ling, pollock, cusk and haddock filet means filet cut from fresh fish, as described in Paragraph 12.

Salted cod, ling, pollock, cusk and haddock filet means filet which, while fresh, has had the backbone and tail removed during splitting, and which has then, in a cured state, been trimmed in accordance with Paragraph 12.

Split, salted fish means salted fish cut into filet-like pieces, where the remains of backbones and other bones are included.

Paragraph 12.

As standard original filet types for the various markets, the following can be mentioned:

Cod filets. - The following have been cut off from the sides of the fish:

1. Dorsal fins and all bones attached to them.
2. Backbone (vertebral column).
3. Anal fins and all bones attached to them.
4. Caudal fin.
5. Ventral bones (rib bones).
6. Pectoral fin and pelvic fin and bones attached to them.
7. Shoulder bones[6].
8. "Fork" bones[7].
9. The thin flesh of the belly.

Pollock filet. - The following have been cut off from the fish sides, which may have scales:

1. Dorsal fins and all bones attached to them.
2. Backbone (vertebral column).
3. Anal fins and all bones attached to them.
4. Caudal fin.
5. Ventral bones (rib bones).
6. Pectoral fin and pelvic fin.

The cutting of filets that are not standard types is done according to instructions from the Control, or according to special agreements.

Paragraph 13.

For the production of original salted filets, fresh fish must be used, which has been treated and bled in accordance with the regulations. Fish intended for this purpose are permitted to have lost their death stiffness.

Thin fish (skin-fish), ripped and torn fish, and fish which have been frozen or are sour, must not be used for filets. Trimmed filet pieces must meet the requirements for weight classes in a cured state, and the natural filet shape must be intact.

Gelatinous[8] fish, which occur particularly in the spawning season, must not be used for filets.

Paragraph 14.

The work of fileting and processing must always be organized in such a manner that cutting and processing can proceed continuously in a satisfactory way in all processing stages, until the fish are placed in salt in piles on boards.

This means that the piling up of filets in one or several stages of processing is not permitted.

The filet must be cut, processed and salted as soon as possible, and not later than 24 hours after the fresh fish were delivered by the fisherman, cf. Paragraph 6, second section.

For fileting, a machine or a suitable knife (filet knife) for manual fileting must be used.

Fileting can be done on a suitable table or board with wash tub. The individual filet is washed carefully in the tub, where the water is kept circulating by constantly adding new, clean fresh water. All impurities, blood and fibers are removed. Attached skin or ragged pieces are cut off. After washing, the filet is placed on a grating.

From the grating, the filet proceeds to salting. Each individual filet must be placed evenly and smoothly in a pile on raised boards or in a salting tub, and is salted with clean, unused salt which is evenly distributed over the entire surface.

The utmost care must be taken during washing, cleaning and moving of the filet, so that it is not damaged or contaminated in any way.

After 3 days, but not later than 5 days, in salt, the filet must be placed in a new pile, cf. Paragraph 10, second section.

Trimming of the filet after it has been salted is permitted, on the condition that the filet meets the requirements for weight class and natural shape when it has been trimmed, i.e. it must weigh at least 200 g. Filets below this weight limit must be kept separate and can be sold as small filets.

Paragraph 15. (349)

The filet must be fully cured, wholesome and fresh, prepared according to the regulations, cf. Paragraph 10, last

section. Excess salt must be removed before the filets are graded and weighed.

There are two commercial grades for all salted filet types, namely Extra and Superior. Extra is characterized by a well-bled filet, i.e. emptied of blood. The commercial grade Superior, can have a somewhat darker colour and some traces of incomplete bleeding, cf. Paragraphs 17 and 19. For export, some Extra filets can be included in Superior, under the label Superior.

Filets that are reasonably evenly distributed among the commercial grades of Extra and Superior with regard to quantity, can be sorted into the same commercial grade under the label "Blend", or corresponding labels in other languages.

Filets with an appearance that is inferior to the above-mentioned grades cannot be exported as filets defined in Paragraph 11, but may, if possible, be improved through drying.

Original salted cod filets are sorted into three weight classes:

1. Small filets under 200 g.
2. 200-400 g.
3. Over 400 g.

Salted pollock filets are sorted over and under 1,200 g.

Salted filets of the two above-mentioned fish species can also be sorted into other weight classes, or according to the number of pieces per box, or according to agreements between buyer and seller, cf. Paragraph 27.

Paragraph 16.

Salted filets should preferably be stored in cold storage at a temperature of +2° to +4° C. Salted cod filets should preferably be exported or sold domestically for human consumption within 16 weeks, salted pollock filets within 10 weeks.

Chapter 4.

Sorting of salted fish.

Paragraph 17.

If salted, unbled fish are present in the plant, these must be shown by the producer before sorting begins.

Salted fish must be fully cured, wholesome and fresh, and prepared according to the regulations, cf. Paragraph 10. They must be free from intestinal remains and other entrails, and there must be no loose neck skin from incorrect heading. Excess salt must have been removed from salted fish before they are sorted or weighed, cf. Paragraph 27.

Paragraph 18.

Salted fish are sorted into the following sizes: full-sized, small and extra small, or according to the sizes and number of pieces, if applicable, that have been established for the market in question, cf. Paragraph 29, seventh section.

Full-sized fish are cod over 58 cm, pollock over 53 cm, haddock and cusk over 40 cm and ling and blue ling over 64 cm.

Small are cod from 43 cm to 58 cm inclusive, pollock from 43 cm to 53 cm inclusive, haddock and cusk from 32 cm to 40 cm inclusive, and ling and blue ling from 44 cm to 64 cm inclusive.

Extra small are fish that are smaller than the minimum sizes listed above for small fish.

For cod, pollock and haddock, measurements are taken from the cleft of the tail to a straight line drawn between the tips of the two shoulder girdles. Ling, blue ling and cusk are measured from the tip of the tail to a straight line drawn between the tips of the two shoulder girdles.

Salted fish with backbone are graded extra small and small up to 50 cm.

Paragraph 19.

Salted fish are sorted into the commercial grades Extra, Superior and Universal.

Extra must consist of fresh fish processed according to the regulations and well bled, well washed and cleaned of all remains of blood and gut before salting. They must be evenly salted according to the regulations, evenly and well pressed and restacked during processing. The fish must have no frost damage.

Pollock, regardless of size, must be carefully scraped (scaled).

Fish with very minor defects can be included as long as the overall appearance is good.

The fish must be processed according to the regulations, with a light, firm flesh and good appearance.

Superior are fish which do not meet the requirements of Extra, but which are still considered good consumer products as salted fish and for the production of klipfish. Fish with minor defects may be included, as long as the quality and appearance do not otherwise warrant lower grading. Thin fish (skin-fish), fish with much blood, gall or liver-stained bellies, and fish which are very cracked or torn, cannot be included in this grade. Fish with small liver stains can be included.

When salted fish are evaluated for this grade, the emphasis is placed on the overall appearance of the shipment. (350) Special attention is focused on whether the fish have been bled according to the regulations, and have been restacked during production. If they show signs of this, somewhat more serious defects will be accepted, when the overall appearance, in particular, the light, firm flesh of the fish, will warrant it.

This grade cannot include fish that show signs of having been stored in ships or on land without being gutted or split, neither can it include fish that show signs of having been insufficiently or unevely salted.

Pollock over 50 cm, which have otherwise been well processed, can be included in this grade even if some scales remain on the smooth belly side and up to a hand's width of scales across the caudal peduncle[9].

For export, some Extras can be included in the Superior grade, under the label Superior.

The Universal grade includes fish with such apparent defects and flaws that they cannot be considered to meet the requirements of Extra and Superior, but still remain wholesome and fresh products.

In the grading of pollock, the somewhat naturally darker colour of this fish species as compared to cod, is taken into consideration. The same usually also applies to the belly of the haddock, and the fact that haddock by nature has a somewhat softer nape than cod.

Also taken into consideration is that blue ling has a somewhat darker skin side.

Fish with scales stuck to the flesh side are to be down-graded, depending on how prominent these defects are.

For export control, special consideration must be paid to whether the fish has a yellowish (rancidity) or sallow colour. It must have fresh, clean and light flesh. Unsightly stains of dried blood and remains of entrails on the fish must have been removed.

If salted fish are cut and split into filet style pieces, these are labelled "split salted fish". Cutting can normally not be done with lower grades than Superior. If fish of a different commercial grade are used, the filet type piece must qualify for the Superior grade.

Paragraph 20.

For pollock under 50 cm, no importance should be paid to whether the fish have been scaled, except for Extra.

In all other cases, the sorting into commercial grades of salted fish that are not full-sized should be done according to the same guidelines as for full-sized fish, cf. Paragraph 18.

Salted fish of size 'extra small' and 'small' of pollock, cusk and haddock, as well as backbone pollock, which are distributed relatively evenly among the various commercial grades, can be sorted into a joint commercial grade under the label "Blend" in the appropriate language.

Fish other than full-sized must be labelled according to size, and, if applicable, according to the number of pieces.

Paragraph 21.

Salt must be spread evenly between the fish layers during packing. The buyer has the right to demand a minimum quantity of salt per package.

Salted fish for export must be cleaned of dried blood around the shoulder bones and on the rest of the fish. Any removal of the black skin, etc., must be performed in a professionally acceptable fashion.

Paragraph 22.

The commercial grades listed for dry-salted fish and filets shall also apply to brine/pickle-salted fish and filets, which are to be fully cured at the time of inspection and sale. Before they are graded, they must be taken out of the barrel or tub and placed on grating, so that the brine will drain off properly. During packing, unused clean salt is spread between the layers, and the container is filled with full strength brine (24° B.)

Brine-salted fish which are to be used as dry-salted fish, must be stacked in piles, restacked and well pressed and drained before they are presented for inspection.

Paragraph 23.

For the production of brine-salted fish without backbone and tail, the backbone must be removed and the tail cut off during splitting, before they are salted. The tail must be cut off in such a way that no loose skin pieces are attached to the fish.

The fish must meet the requirements of the regular commercial grades.

The fish must be well pressed in piles for export, cf. Paragraph 22, last section. If this type of salted fish are trimmed according to Paragraph 22, they can be labelled "salted filet", cf. Paragraph 11, second section.

Paragraph 24.

The hold of a vessel that is to transport salted fish must be suitable, properly cleaned and well aired. There must be good and tight insulation between the hold and the engine.

It is prohibited to load or unload salted fish in a manner that could damage them.

Fish in bulk should be loaded on board and brought ashore in barrows or wheeled barrows in slings.

Fish in bulk must be loaded professionally (flattened) in piles. A sufficient amount of unused and clean salt must (351)
be used for spreading between the fish layers. The floor must be covered with boards and there must be sufficient stay and dividing materials on the fish piles in the transport vessel.

Paragraph 25.

Exceptions from the requirement of salted fish being fully cured when presented for inspection can be made for salted fish which are loaded in bulk on the transport vessel. The Control will decide in each individual case, if a colander may be used to inspect such a shipment of salted fish, or a part of it[10].

For export, the colander must not be used for more than 10% of any part of the load.

For export, there must be a written declaration from the buyer that he agrees to, and accepts, that the goods are shipped in an uncured state.

If the buyer and the seller in a domestic sale, cannot agree on the amount to be inspected with colander, the decision can be made by the Control, if both parties so desire.

Chapter 5.

Drying of salted fish for klipfish.

Paragraph 26.

The fish must not be washed until they are cured. If tubs are used for washing, they must have a removable ribbed bottom, and the fish must be washed in running water. A different method of washing approved by the Control can also be used. There must not be too many fish in the water at one time.

Both sides of the fish are washed carefully. Black skin, remains of neck blood, blood stains, fibers and all impurities must be removed from the fish. The black skin may remain on fish that are to be processed for special markets, and the black skin must then be intact. Any remains of black skin, blood stains, etc., must be removed through cutting. Salted fish without black skin (cf. Paragraphs 7 and 10),

which are considered sufficiently clean by the inspector, do not have to be washed before drying.

After washing, the fish must not be stacked in piles that are too high, since this could cause the brine to drain off too rapidly.

For drying in the open air, the equipment needed to preserve the products must be used, such as bottom and top flakes, as well as good tarpaulin to protect the fish necks from being washed out during rainy weather.

The fish must be placed neatly in the pile. Uneven bellies are to be stretched out.

Restacking must be done during drying, so that the fish will be evenly pressed. Rush drying must not take place. The transport of fish during drying must be done carefully so that the fish do not break or are otherwise damaged.

The fish must not be stacked in piles on rocks or in storehouses until they have cooled off sufficiently, neither must they be loaded on vessels in such a state.

Artificial drying must not be done in such a manner that the fish are damaged by contaminants from heat sources, by frames with poor strings and lack of cleanliness.

During drying care must be taken that the temperature is not too high, but adjusted according to outdoor temperature and air humidity.

Before the fish are placed in a drying room, they should

be sorted according to size and thickness, so that fish that are as similar as possible are dried together.

Undissolved grains of salt should not be present on fish which are ready for drying, and must not be present after the first drying.

The fish, depending on their size and thickness, should go through 5 to 6 dryings. The fish should be stacked and re-stacked between each drying. After the 1st, 2nd and 3rd drying, the fish should be placed in round piles, where they will straighten out better. When restacking, the fish are treated as described for natural drying. They must remain until the surface becomes moist again.

For subsequent dryings, the fish may be placed in long piles.

Backbone pollock which are to be dried, must be cured and washed and/or rinsed and be free of surface salt, before they are put in the dryer. Backbone pollock can be dried to the desired moisture content in one single operation, when this can be done without damaging the fish.

Chapter 6.

Degree of dryness, size and commercial grade.

Paragraph 27.

Sorting must not be done in poor lighting.

When sorting salted fish and klipfish on benches, a sorting bench approved by the Control must be used.

The person who is in possession of the fish, must acquire the necessary equipment to perform the work to the satisfaction of the Control. A sufficient number of qualified graders to do the work must be available. He must make sure that processing, sorting and packing are done according to the regulations.

The following preparations must be made in advance; (352)

1. Klipfish that come directly from the drying room, or are brought inside after having been outside in the sun and wind, must lie in shelter in order to straighten out sufficiently. The same applies to klipfish and salted fish that are too cold (stored at temperatures below $+2^{\circ}C$). In cases where the klipfish are colder, they must be placed in shelter outside the cold-storage shed until they can be evaluated.
2. Klipfish with too much loose salt on the surface, or with an unusual amount of undissolved salt grains pressed into the surface of the fish, must be brushed.
3. Klipfish which, as a result of poor washing, have a very noticeable slime crust (salt crust) on the skin side must be brushed.
4. Pollock over 50 cm, which have not been scraped or scaled, must be stacked separately.
5. Klipfish which have gone through forced drying and show signs of this, such as poor pressing, must be kept separately.
6. Fish that are mite-infested and then brushed must afterwards be placed in shelter for at least 3 days, if they are going to be packed as Superior/Imperial. Brushing should preferably

be done in a separate room, and always in such a fashion that mite-free products do not become infected. Fish that have a lower degree of dryness than 'storage dry' or that have just become 'shipment dry', must not be brushed.

7. Mite-infested and burnt fish, as well as sour fish and guano fish, must be kept separate.
8. The preparations must also include separating the fish according to degrees of dryness, commercial grades and sizes, when the Control considers it necessary.

Only when the preparations mentioned in these 8 points have been completed, will the inspector be called in. The inspector can demand that there must be a capacity for packing at least 10,000 kg klipfish or salted fish (whole fish) per day.

Should the conditions in the plant not be considered satisfactory - lack of work equipment and preparations, lack of knowledge in grading, too small quantities (i.e. less than 10,000 kg) - the inspector can demand that these faults be corrected, or that the products be brought to another location where the work can be carried out according to the regulations.

The work of grading must be performed according to the instructions and the experience and judgement of the inspector, in conformity with these regulations.

The Chief Controller has the right to demand that graders who do not comply with the orders given by the inspector regarding the grading, be removed. The Chief Controller can halt the

inspection when the work proceeds too slowly due to a lack of workers, or due to poor preparations.

If there is non-compliance with the orders given by the inspector, the inspection will be considered not completed, and no certificate will be issued.

The Chief Controller determines, in each individual case and with binding effect, all matters regarding the carrying-out of the official inspection.

Paragraph 28.

The degree of dryness is determined according to the experience and judgement of the inspector according to the following categories:

1. Soft cure.
2. 3/4 dry.
3. 7/8 dry.
4. Shipment dry.
5. Storage dry.
6. Extra storage dry.
7. Box dry.
8. Box dry pollock must be extra box dry.
9. Backbone pollock for tropical markets must be extra box dry, and box dry for other overseas markets, but when a market has special requirements for the degree of dryness, these must be taken into consideration.

The degree of dryness termed 'extra storage dry' can only be used for ling under 70 cm, and for other fish under 65 cm, and for "Langa" and boneless fish for Mexico.

Fish which are less dry than soft cure , are graded as salted fish.

For domestic sale, it is permitted to use a colander when klipfish are sold on the basis of a specific degree of dryness.

The amount to be inspected with colander can be determined by the Control, if buyer and seller agree to this.

Paragraph 29.

Klipfish are sorted into the sizes 'full-sized', 'small' and 'extra small', or according to the sizes and number of pieces, if applicable, that have been established for the market in question.

Full-sized are cod over 55 cm, pollock over 50 cm, ling and blue ling over 60 cm and cusk and haddock over 38 cm.

Small are cod from 40 cm to 55 cm inclusive, pollock from 40 cm to 50 cm inclusive, ling and blue ling from 40 cm to 60 cm inclusive, and cusk and haddock from 30 cm to 38 cm inclusive.

Extra small are fish that are smaller than the above-mentioned minimum measurements for small fish.

Klipfish backbone pollock are graded extra small or small up to 47 cm. (353)

For cod, pollock and haddock, measurements are taken from the cleft of the tail, from a straight line between the tips of the tail to a straight line between the tip of each shoulder bone.

When sorting according to the number of pieces, the fish must be of equal size.

In order that the size of the fish in a shipment be even, when the fish are sorted according to number of pieces, the following limits for extra fish per full package (41-60 kg) should be employed and not exceeded:

5 fish per package of 20 fish or less
10 " " " " 21-40 fish
20 " " " " 41-100 fish
40 " " " " 101 fish or more

For half and smaller packages, corresponding numbers should be packed.

Paragraph 30.

The following 4 commercial grades of klipfish are allocated according to the experience and judgement of the inspector:

These grades are:

'Extra' which must have the following characteristics:

1. The fish must be free from blood.
2. They must be neatly gutted.
3. Well washed and cleaned.
4. Neatly split.
5. Evenly salted and well pressed. The fish must have a firm

light flesh and be particularly well processed.

6. Pollock must be scraped, i.e. all scales removed.

Imperial/Superior. Minor defects, such as fish with small tears and not as good cleaning, somewhat uneven salting and a small part of the spinal cord, can be permitted, as long as the overall appearance remains good.

Fish whose bellies have not been entirely emptied of blood may also be included. It is also permitted to include fish which, due to processing mistakes, have been slightly damaged during drying, e.g. through rapid drying, or that have some dried blood around the shoulder bones, or have been less well pressed.

Special attention is paid to whether the fish have been entirely emptied of blood (bled).

In such fish, more serious defects are tolerated than in unbled fish, when the overall appearance warrants it.

Fish may be included that have been mildly infected by mites, but that show no signs of mite spots and brush strokes after brushing, cf. Paragraph 27, point 6. For export, some Extra can be included with Imperial-Superior. Pollock over 50 cm, which are otherwise well prepared, can be included in this grade, even if there are some scales left on the smooth belly sides and up to a hand's width of scales across the caudal peduncle[9].

Klipfish as described above, but with more noticeable defects, are labelled Universal. Also included in this grade are fish with one or several of the following defects: Incomplete splitting, rounded tails, poorly salted, carelessly washed, prominent slime crust, too long vertebral column, too much dried spinal cord matter, and larger tears. Also included are fish which in ways other than those mentioned above, show signs of having been carelessly processed. Fish of Imperial/Superior quality which are somewhat sour, somewhat burnt or somewhat mite-infested and brushed, as well as washed fish can also be included. Insufficiently scaled pollock of Superior/Imperial quality can be included.

Popular is the label given to fish that have so many defects that they cannot be included in the above-mentioned grades, but still remain wholesome and fresh and fit for human consumption.

Paragraph 31.

Klipfish with defects that cannot be corrected (those mentioned in Paragraph 27, points 1-7), must be downgraded in relation to the seriousness of the defects. The same applies to klipfish with "red spots"[11] red feed spots.

All sorting into commercial grades must be done according to the regulations in Paragraph 30, regardless of the size of the fish. However, extra small klipfish and small fish of

pollock, cusk and haddock can be packed together as one commercial grade with the label "Blend" in the appropriate language, when the fish are distributed relatively evenly among the different commercial grades.

Backbone pollock can also be packed in a joint commercial grade, when the fish are distributed relatively evenly among the various commercial grades, and must then be given the label "Pollock with whole backbone" in the appropriate language according to the rules issued by the Director of Fisheries. If backbone pollock are sorted and packed according to specific commercial grades, the Norwegian commercial grade labels must be used.

Very burnt or sour fish are labelled "burnt" or "sour", or corresponding names in other languages without any commercial grade labels, when shipped to markets where such fish are allowed.

All the commercial grades may have black skin, when (354)
this is desired by a particular market.

If klipfish are requested to be cut for packing in small parcels, the shoulder bones and tail up to firm flesh must be removed.

On European markets and for domestic sale, the commercial grades listed in Paragraph 30 can be replaced by the labels 1, 2, 3, and 4, but fish which are slightly burnt, slightly sour or slightly mite-infested must then be given the corresponding additional labels.

Fish that have mites, or that were previously mite infested, must be 'storage dry' (with the exception of fish that have just become 'shipment dry') or drier, in order to be allowed for export.

Chapter 7.

Partially trimmed klipfish

Paragraph 32.

In the production of skinned and boneless klipfish, the following is cut off:

1. The shoulder bone.
2. Remains of backbone and blood vessels[12].
3. Spine bones[13].
4. All bones belonging to fins.
5. All fins.
6. Tail.

The skin is pulled off (skinning). The fish are carefully cleaned of skin and blood-stains, and blood vessels are removed. The tips of neck and belly are trimmed to leave only firm flesh.

Paragraph 33.

When processing boneless klipfish with skin, the following is cut off:

1. Shoulder bones.

2. Remains of backbone and blood vessels.

3. Spine bones.

4. All fins.

5. Tail.

The tips of neck and belly are trimmed to leave only firm flesh.

The sorting into commercial grade and degree of dryness is done according to the same guidelines as for whole fish.

Each fish species must be packed separately.

Chapter 8.

On packing and marking of packing.

Paragraph 34.

When packing salted fish and klipfish for domestic sale or for export, only packing that will ensure that the goods arrive in good condition must be used.

All salted fish and klipfish for export must be sent in packing, and the packing units must be 25 kg net of fish (½ package) or 50 kg net of fish (1/1 package). Export of regular salted fish, however, may be on pallets or in bulk in the hold, when there is documentation that the buyer has requested it.

For packing of salted fish, wood boxes or jute/bags are to be used. Salted filets can be packed only in wood boxes, or paper packing if it is approved.

As packing for klipfish, wood boxes, bood box + tin container, cardboard boxes, jute/bag, or jute/bag + paper, can be used.

Boxes (wood or cardboard) for klipfish and salted fish must be clean, light-coloured, dry and not mouldy or dark or weather-beaten, and they must not have been used before. They must be large enough so that the fish will not break when packed, or be damaged when pressed.

Wood boxes for klipfish must be planed and have concave bottoms. Exceptions can be made according to special regulations for specific markets issued by the Director of Fisheries. The soldering of tin containers must have been done properly.

Fish which are 'shipment dry', or have a lower degree of dryness (higher moisture content), must not be subjected to pressure in the package.

All packing must be done in a professional manner, and each fish species, commerical grade, degree of dryness and size group must be packed separately.

Standard wood boxes for klipfish:

When packing klipfish in wood boxes, the following standard sizes must be used:

50 kg packing (1/1 package)

Dimensions:	**Inside measurements mm**
Regular box	808 x 568 x 175
Large box	968 x 568 x 175
Extra large box	1104 x 468 x 175

Thickness of material:

Sides and ends	16 mm (minimum requirement)
Lid and bottom	12 mm (minimum requirement)

25 kg packing (½ package)

Dimensions:	**Inside measurements mm**
Half box	772 x 372 x 140

Thickness of material:

Sides and ends	14 mm (minimum requirement)
Lid and bottom	10 mm (minimum requirement)

Cardboard boxes for klipfish.

Klipfish can be packed and shipped in cardboard boxes of 25 kg net, and these can be shipped on pallets. The Director of Fisheries issues more exact specifications and minimum re-requirements for cardboard boxes and pallets.

Klipfish and salted fish packed in bundles. (355)

Jute fabric or jute bags are to be used for packing **salted fish** in bundles. Other material approved by the Director of Fisheries can also be used.

Jute fabric/jute bag, or jute fabric/jute bag + paper, are to be used for packing **klipfish** in bundles. Other material approved by the Director of Fisheries can also be used.

The quality of the jute fabric must be at least 7.5 oz per square yard. This also applies to jute bags. Approved paper and jute must be of such a size that the bundles are sufficiently covered (double wrapping).

Three-ply sisal rope is to be used for tying the bundles. Other fastening of equal strength can also be used. The Director of Fisheries issues specific requirements for plastic tape and adhesive tape.

When klipfish and salted fish are packed in bundles, the fish are placed so that they will not break or be damaged in any way, and in such a manner that the package has normal shape. Forms for packing are to be used, if necessary.

Packing in bundles is done as follows:

Klipfish and salted fish for European markets.

1. The fish bundle is secured with two transverse sisal bindings, or other bindings of corresponding strength, as e.g. plastic tape. Three transverse bindings per bundle must be used for extra small fish.

2. The bundle is covered with jute, which is sewn together with strong thread, and in such a manner that the stitches will not pull.

Jute bags, closed with stitches or with mule thread and string, can also be used.

Klipfish for overseas markets.

1. The fish bundle is secured with two transverse sisal bindings, or other bindings of corresponding strength, as e.g. plastic tape. Three transverse bindings per bundle must be used for extra small fish.

2. Two layers of approved creped kraft paper, or two sheets of duplex crepe, are wrapped around the bundle.

3. The bundle is secured with a cross binding that is equal in strength to 3-ply sisal rope. Tape (adhesive tape) can also be used to fasten the ends and side of the paper.

4. The jute fabric is placed on top and sewn together with strong thread in such a manner that the stitches will not pull.

Jute bags can also be used. These can be closed with stitches or with mule thread and string.

5. The jute is secured with two reinforcements of string, steel strips or plastic tape around the bundle, crosswise or lengthwise.

If plastic tape is used when packing the fish (see point 1), the reinforcement of string or steel strip on top of the jute or bag can be knotted.

If approved tape has been used on top of the jute/bag, the interior bindings mentioned in point 1, can be knotted.

Packing, etc., of other materials or dimensions, or other weight units, or other packing methods than described above, have to be approved by the Director of Fisheries before being used.

Paragraph 35.

The exterior packi and the consumer packing, if any, must be marked with:

1. The name and/or trade mark of the exporter and the registration mark of the packer.
2. Whether it contains klipfish or salted fish or what kind of filet.
3. The fish species and whether it is trimmed/cut fish, if applicable. Backbone pollock is to be marked "Pollock with backbone" in the appropriate language.
4. Whether it is fish with black skin.
5. Commerical grade.
6. Degree of dryness.
7. For fish that are not full-sized, either the number of pieces, the weight limits, the size categories or measurements in cm, must be marked. Full-sized fish can be similarly marked.

8. The net weight of the package.
9. Sender identification and destination.
10. Producer's own marking, if available, for fish that are to be put in cold storage.
11. Control mark.

The interior packing of klipfish packages weighing 10 kg or less, must carry the name or trade mark of the exporter, the commercial grade, fish species and weight.

Only Norwegian and foreign markings prescribed by the Control can be used.

The text on the exterior packing must be at least 2 cm high. All markings must be clear. Marking must be done with stencil, tool mark, rubber stamp or machine stamp. (356)

The packing must not have markings that are contrary to the regulations, or are judged by the Control to be misleading.

Chapter 9.

Adapting products to individual markets.

Paragraph 36.

The Director of Fisheries can, at any time, issue special rules regarding fish species, degree of dryness, size, packing, method of packing, weight of package, markings and method of shipment for the sale of salted fish or klipfish to specific markets.

It is not permitted to pack or ship fish in any other manner that what has been determined for the market in question. Neither can any other fish species or fish of other degrees of dryness, commercial grades or sizes be shipped than what has been determined for the particular market where the fish are to be consumed.

It is the duty of the producers and exporters to keep up to date, by turning to the Chief Controller of the district, with any changes in special market regulations, and to keep their customers correspondingly informed.

Chapter 10.

Storage and transport.

Paragraph 37.

Storage of klipfish and salted fish must be arranged in such a manner that the product is not damaged. It must be protected from draught, moisture, contaminants, frost, etc., and should preferably be stored in cold storage at a temperature of $+2^{\circ}$ to $+4^{\circ}$ C. It is prohibited to store klipfish at temperatures below $+2^{\circ}$.

Paragraph 38.

Klipfish and salted fish shipments that differ with regard to degree of cure or method of salting (brine-salted, dry-salted) must be kept clearly separated from each other,

either through the type of packing, or in some other fashion. This also applies to klipfish and salted fish shipments from different catch or production years (calendar year), when it is requested that the year be included in the certificate.

Paragraph 39.

Klipfish and salted fish must be transported, loaded and unloaded in such a manner that the goods or the packing are not damaged. Delivery to or from a means of transport must not take place when the weather is such that it could damage the fish or the packing. For shipment of salted fish in bulk in transport vessels, cf. Paragraph 24. The transport should take place in refrigerated holds at a temperature of $+2^{\circ}$ to $+4^{\circ}$ C.

Chapter 11.

Goods that are contrary to regulations.

Paragraph 40.

Salted fish, salted filets and klipfish which were not produced, packed, marked or transported in accordance with these regulations, can be stopped from sale and further shipment, cf. Paragraph 48. Stopped goods can be marked by the Control in whatever manner considered necessary. The removal of previous control marks can be demanded.

Goods which are not fit for human consumption can be ordered to be discarded by the Control, and the Control can

decide whether some of the goods can be used, for example, through trimming. This applies in particular to lots that are visibly infected by red mites or worms[14].

The person whose goods are stopped by the Control, must be notified and given a suitable delay in which to take care of the shipment, or to eliminate the defects, if this is possible. It is sufficient to give notice to the person who is in control of the goods, or, if applicable, the person who is in possession of the goods. The Control must ensure that the goods are not disposed of in contravention of the injunctions issued by the Control, and the Control may order the person who disposes of the goods to provide a written declaration on how the goods are disposed of.

If the goods are not disposed of within the time allotted, the Control can arrange to have the goods sold for the benefit of the Public Treasury, and can demand that any extra expenses be reimbursed.

Chapter 12.

Co-operation between the fisheries industry and the official Control.

Paragraph 41.

The Fisheries Control conducts general supervision of the dressing and processing of fish, and of fishing and transport vessels, work premises, work procedures, packing,

storage and transport. It also provides guidance and instruction to the extent that this is feasible, in order to have problems corrected.

Paragraph 42.

Requisitions for inspection must be directed to the Chief Controller of the district well in advance. The request must be in writing and on the prescribed form, indicating:

1. Means of transport.
2. When, and to what market, the fish are to be sent. (357)
3. What commercial grades and quantities are to be inspected.
4. Packing.
5. Shipment marking.

A report containing the above information must be sent to the Chief Controller before packing of the shipment is begun, even if the shipment has a special exemption from inspection issued by the Director of Fisheries.

When the year of production is requested to be included in the certificate, the year of catch and the year of production (both) of the fish must be reported.

For klipfish, the report must state the degree of dryness, and the method of drying when this is requested to be included in the certificate. For salted fish, the report must state whether the fish are dry-salted or brine-salted, how much salt is to be spread on the salted fish in the packing, and how long the fish have been in salt.

The request must state who is in possession of the goods, and who has been in charge of production and was responsible for supervising that production took place in accordance with the regulations.

Paragraph 43.

Inspection according to the requisition.

The District Inspector decides in what order and in what manner the inspection of the individual lots that were included in the requisition, is to be carried out, and gives notice to the packer of when an inspector can be present.

The preparations m have been completed according to Paragraph 27, and the following inspection methods can be used:

a) Full (total) inspection.

Packing is not started until the inspector is present. The inspector arranges the work of sorting and follows the packing without interruption for as long as it goes on.

b) Ambulant (alternating) inspection.

Ambulant inspection means that one inspector can inspect the packing of several shipments in several plants at the same time, and that the packing can take place without the inspector being present the whole time. The procedure for this inspection is as follows:

Before packing begins, the inspector shall - if possible -

have acquainted himself with the shipment and have given instructions for how grading and packing are to be carried out.

Should the inspector find that the shipment is poor, and/or that the grading is doubtful, he shall inform the packer of this and intensify the inspection. The inspector will in that case determine whether he wishes to perform a re-examination of the entire packed shipment, or parts of it, and advises the packer, so that the best possible preparations can be made for this re-examination.

Re-examination can be carried out to the extent considered necessary by the inspector, in order to determine whether the shipment can be approved or not.

c) Final inspection.

The District Inspector can, upon request, give permission for small shipments to be packed without an inspector being present. Such packing shall be followed by final inspection, and the packer must therefore make such preparations that the final inspection can be carried out in a practical manner.

Paragraph 44.

The inspection of klipfish and salted fish for export must take place within a reasonable time of the goods being shipped.

Should an inspected shipment not be sent within a reasonable time after inspection has been carried out, the reason for

the delay must be reported to the Fisheries Control.The Chief Controller determines whether another inspection, and/or re-packing, is necessary.

Paragraph 45.

When inspection has been carried out according to the regulations, a stamp showing this is placed on each individual package in a clearly visible place. Stamping must be done under the supervision of the inspector.

Based on the completed inspection and the approval of the shipment, the inspector issues an inspection report on the prescribed form, which is sent to the District Controller, who will issue a standard inspection certificate.

The Fisheries Control has the right to open and examine previously inspected shipments, when special conditions warrant it.

Otherwise, inspected shipments are not to be opened, unless special permission has been given by the Control.

Inspected shipments are to be kept separate from non-inspected fish.

Paragraph 46.

On the basis of the inspector's examination of the goods, a standard control certificate can be issued.

The certificate can state whether the goods are wholesome and fresh and fit for human consumption.

The certificate can also state, if the buyer so wishes, how much salt was used - under the supervision of the inspector - for spreading on the layers of salted fish, cf. Paragraph 21. (358)

For sale of salted fish or klipfish in accordance with the regulations on sale of goods with colander inspection (cf. Paragraphs 25 and 28), the quantity inspected with colander is stated in the certificate.

It is not permitted to issue a certificate for anything that has not, at any one time, been authorized in these regulations.

For export, inspection is not complete until the stamped bill of lading and the certificate, if applicable, have been delivered by the Control. If a new official inspection is needed, the reasons for it must be delivered in writing to the Chief Controller, who will determine if the request can be granted. A second quality grading and inspection thereof cannot be granted solely for the reason that buyer and seller are dissatisfied with the completed inspection.

Paragraph 47.

For salted fish and klipfish of species that are not described in these regulations, the Control may, according to its judgement, provide a certificate stating that the description of the goods in the sales contract was the basis for the inspection.

Paragraph 48.

Shipments that have not been approved by the Control can be ordered to be presented for a new inspection. Such goods must not be moved until the Control, after having received a request, has given its permission.

The request must be signed by the individual (manager/ supervisor) who is responsible for ensuring that processing and production have been carried out according to the regulations in force.

Paragraph 49.

For export of klipfish and salted fish, the shipper must present to the Chief Controller all bills of lading issued for the shipment. The Chief Controller will stamp the bill of lading and attach a certificate that the shipment has been inspected, if this is applicable.

The Chief Controller writes a report for the customs authorities, stating that the shipment has been reported for inspection and can be exported. The shipper must present this report to the customs authorities in order to obtain a loading permit.

The Control will recall such a report, if the shipment subsequently turns out not to be in accordance with the requisition, and the customs authorities can then refuse clearance.

Chapter 13.

On inspection

Paragraph 50.

The control of the enforcement of these regulations is administered by the Director of Fisheries and is carried out by Norway's Fisheries Control.

The Director of Fisheries issues detailed instructions for the inspection.

The country is divided into the following Chief Controller Districts:

Tromsø Chief Controller District, which includes the counties of Troms and Finnmark.

Bodø Chief Controller District, which includes the county of Nordland.

Trondheim Chief Controller District, which includes the counties of Nord-Trøndelag and Sør-Trøndelag.

Kristiansund Chief Controller District, which includes Nordmøre and Romsdal.

Ålesund Chief Controller District, which includes Sunnmøre.

Bergen Chief Controller District, which includes the coast section from, and including, Sogn and Fjordane to, and including, the county of Østfold.

The Director of Fisheries can decide that localities within one district are to belong to the Chief Controller of another district, when this is considered convenient.

Paragraph 51.

For its work, the Fisheries Control has access to ships, premises and plants where depositing, processing, packing, storage and transport take place, and has the right to carry out inspections. The Fisheries Control has the right to open packing and to remove samples for inspection without compensation.

Upon request, all papers that may be of importance to the work of inspection, e.g. fish delivery bills, covering letters, etc., must be presented or delivered to the inspector. The Control can demand information about inventories or the statistical information necessary for inspection purposes.

The officers of th isheries Control are under obligation to observe secrecy with regard to conditions involving private business matters, that they may become acquainted with during the inspection.

However, in cases where it is considered to be in the general interests of the salted fish and klipfish industry, the Department of Fisheries can, in each individual case, agree to provide information about such conditions to the officers, appointed by the Department, who represent the export organisation involved. The extent of the information will be determined by the Department of Fisheries for each individual case.

Paragraph 52. (359)

In special cases, the Director of Fisheries can grant exemption from individual rules contained in these regulations.

Paragraph 53.

Violations against these regulations will be prosecuted and confiscation can take place pursuant to Paragraph 11 of the Law on "Quality control of fish and fish products, etc.," of May 28, 1959.

Paragraph 54.

These regulations take immediate effect.

Simultaneously abolished are: Royal Ordinance of October 30, 1959 on grading of klipfisn, Royal Ordinance of May 9, 1958 on grading of salted fish, "Instructions for grading of salted fish and klipfish" issued by the Department of Commerce on April 22, 1922, "Instructions for grading for overseas markets" issued by the Department of Commerce on April 9, 1924, "Regulations for dressing, processing and transport of fish intended for the production of salted fish, klipfish and dried fish" issued by the Department of Fisheries on April 30, 1960, and "Regulations for quality control of salted fish" issued by the Department of Fisheries on July 5, 1958.

TRANSLATOR'S NOTES

1 Salted fish = wet salted fish, i.e. kench, brine or pickle-salted fish.

2 Klipfish = split, salted and dried fish, Norwegian style.

3 "Control" with a capital C refers to the controlling agency, Norway's Fisheries Control.

4 "Clean" heating, i.e. heat from a non-polluting heat source, e.g. electric.

5 Norwegian "blodstubbe" (lit. 'blood stump') translated "spinal cord" and "spinal cord matter", although it is not the standard Norwegian word for spinal cord. I was unable to confirm this translation.

6 Nor. "ørebein" refers to the bones of the shoulder, or pectoral, girdle.

7 Nor. "spåmannsbein" (lit. "diviner's bone") appears to refer to a Y-shaped bone, perhaps top part of the pectoral girdle, or a bone in the pelvic girdle. I found no reference to this bone.

8 During spawning, the muscle tissue of fish is depleted of nutrients and its texture becomes soft and jelly-like.

9 Caudal penduncle = the narrow tail portion of a fish.

10. This paragraph seems to deal with brine-salted fish, although this is not mentioned in the original.

11. Nor. "rødåteflekker" most probably refers to the discolouration caused by salt-loving bacteria (halophiles).

12. Nor. "blodrand" (lit. 'blood edge") translated as 'blood vessels', may also mean 'spinal cord'.

13. Nor. "ryggpipe" must refer to the bones of the neural spine, although the standard Norwegian word would be "ryggradsbein".

14. Nor. "kveis" refers to the dark spots left in flesh of fish by parasitic worms called "blaereormer".